STATE OF CALIFORNIA — DEPARTMENT OF FINANCE

MAJOR REGULATIONS STANDARDIZED REGULATORY IMPACT ASSESSMENT SUMMARY

DF-131 (NEW 11/13)

STANDARDIZED REGULATORY IMPACT ASSESSMENT SUMMARY

Agency (Department) Name	Contact Person	Mailing Address
Air Resources Board	Jessica G. Charrier	1001 I Street Sacramento, CA 95814
Email Address	Telephone Number	
jcharrie@arb.ca.gov	(916) 327-7572	

1. Statement of the need for the proposed major regulation.

Heavy-duty (HD) trucks account for about 26 percent of statewide PM emissions. These diesel particulate matter (PM) emissions pose a significant health risk because diesel PM is a carcinogenic toxic air contaminant linked to an increase in both serious illness and premature mortality rates. In an effort to attain air quality standards and reduce the health risks to individuals living in California, large PM emission reductions are needed from the HD trucking sector. The current opacity limits for HD trucks are not adequate to ensure that damaged PM emission control components on HD vehicles get identified and repaired. The proposed amendments to the Heavy-Duty Vehicle Inspection Program (HDVIP) which lowers the current opacity levels, and the Periodic Smoke Inspection Program (PSIP) requiring HD diesel fleets to test annually to ensure the vehicles meet the in-use opacity limits, reduces the in-use opacity limits to account for improvements in emission control technologies that have significantly reduced tailpipe PM emissions over the last two decades. Lower opacity limits will reduce the number of HD diesel vehicles in California operating with excess PM emissions from the HD trucking sector, leading to a reduction in the health risks associated with toxic diesel PM emissions from the HD trucking sector.

2. The categories of individuals and business enterprises who will be impacted by the proposed major regulation and the amount of the economic impact on each such category.

HD diesel trucks operating in California will be subject to the proposed amendments. Affected industries include truck transportation, transit and ground passenger transportation, waste management and remediation services, and State and local agencies that employ HD diesel vehicles. The majority of regulatory costs are due to the required repairs to allow HD diesel vehicles to meet the lower in-use opacity limits, while smaller impacts will be incurred as a result of minimal reporting costs. The amendments to the PSIP would require smoke testers, generally repair technicians and mechanics, to receive training in a smoke tester training course for opacity testing certification.

Motor vehicle parts manufacturing businesses will see an increase in demand for HD emissions components due to the lower in-use opacity limits, and HD repair shops will face higher demand for labor while fleets come in to compliance with the proposed amendments.

3. Description of all costs and all benefits due to the proposed regulatory change (calculated on an annual basis from estimated date of filing with the Secretary of State through 12 months after the estimated date the proposed major regulation will be fully implemented as estimated by the agency).

Costs:

The transportation and goods movement industry is expected to face increased costs due to vehicle repairs, roadside citations, reporting and training. Annual direct costs to industry range from roughly $10 to $100 million, with a cumulative cost of $217.7 million from 2018 through 2025.

Benefits:

The proposed amendments are expected to deliver environmental benefits that include an estimated 1,695,300 pounds of PM emission benefits from the HD trucking transportation sector from 2018 to 2025, with an average of just under 190,000 pounds PM per year. These emission reductions provide health benefits to individuals in California.

4. Description of the 12-month period in which the agency estimates the economic impact of the proposed major regulation will exceed $50 million.

The proposed amendments were determined to be major due to the economic impact of the estimated compliance costs of the proposal exceeding $50 million in 2019 and 2020. Direct compliance costs exceed $100 million in 2019 for the transportation and goods movement industry, but compliance costs drop below $20 million from 2020 through 2025. Secondary industries also achieve benefits, as demand for parts, labor, and administrative services increases.

STATE OF CALIFORNIA — DEPARTMENT OF FINANCE

MAJOR REGULATIONS STANDARDIZED REGULATORY IMPACT ASSESSMENT SUMMARY

DF-131 (NEW 11/13)

5. Description of the agency's baseline:

For the baseline scenario, ARB utilized Regional Economic Model, Inc. (REMI) version 2.1.1, specific to California, to model the macroeconomic impact of the proposed amendments, which assumes the California economy absent the proposed amendments as the baseline. REMI Policy Insight Plus (PI+) is utilized to provide year-by-year estimates of the total impacts of the proposed amendments, pursuant to the requirements of SB 617 and the California Department of Finance (DOF). ARB uses the REMI PI+ one-region, 160-sector model that has been adjusted to reflect conforming forecasts dated June 2017 provided by DOF which include California population figures, U.S. real GDP forecast, and civilian employment growth numbers.

6. For each alternative that the agency considered (including those provided by the public or another governmental agency), please describe:
   a. All costs and all benefits of the alternative
   b. The reason for rejecting alternative

Alternative 1: Stricter Opacity Limits than the Proposed Amendments
a. Costs would increase relative to the proposed amendments due to the turnover of pre-1997 for new vehicles, as the older engines would not meet the stricter opacity limits. Alternative 1 would result in slightly more emission benefits, but at a cost of $14 more per pound PM than the proposed amendments.
b. The intent of the proposed amendments is not to force the turnover of older vehicles, it is to ensure emission control and aftertreatment systems are operating as originally designed. By setting a more stringent opacity limit for all Non-DPF equipped vehicles regardless of engine MY, the alternative would go beyond what the programs were originally designed for.

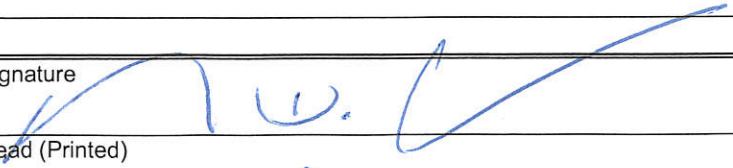
Alternative 2: Less Stringent Opacity Limits than the Proposed Amendments
a. Alternative 2 would result in significantly lower costs relative to the proposed amendments. The less stringent opacity limit would lead to reduced repair costs to industry. Reporting costs, smoke tester training costs, additional PSIP testing costs, additional HDVIP citation costs, and baseline costs are identical to the proposed amendments. The total regulatory cost between 2018 and 2025 is estimated to be about $84 million less than the proposed amendments. Approximately 40 percent fewer emission reductions would be realized under Alternative 2.
b. Alternative 2 leaves significant PM benefits on the table and does not adequately ensure HD vehicles are operating with functioning aftertreatment devices to remove harmful PM emissions.

7. A description of the methods by which the agency sought public input. (Please include documentation of that public outreach).

Staff held multiple public workshops on the proposed amendments starting with introductory workshops in El Monte on August 25, 2016 and in Sacramento on September 9, 2016. Additional workshops were held in Diamond Bar on February 28, 2017 and in Sacramento on May 17, 2017. Every workshop was webcasted except for the August 25, 2016 workshop in El Monte. These workshops engaged representatives from vehicle and instrument manufacturers, trucking fleets, the HD repair industry, and environmental advocates. Following each workshop and throughout the regulatory development process, CARB received input from and worked with stakeholders on a variety of proposed amendments to the HDVIP and PSIP regulations. CARB created a public web page where related workshop materials and relevant information were posted to keep stakeholders up to date on the latest developments in the regulatory process and distributed announcements and workshop materials through the CARB list serves which, based on individual subscribers to the list serves, reach up to 90,000 individuals.

8. A description of the economic impact method and approach (including the underlying assumptions the agency used and the rationale and basis for those assumptions).

The proposed amendments are simulated in REMI by adjusting production costs for industries operating HD diesel vehicles in California. The production cost changes are a result of HD vehicle repair costs, smoke tester training costs, and new reporting requirements. The exogenous final demand variable simulates in the increase in demand for manufacturers of HD vehicle parts and smoke testing equipment, office administrative services, independent repair shops and repair departments in HD vehicle dealerships, and community colleges offering smoke tester training courses. The State and local spending variable mimics the increased spending for additional staff resources, public sector fleet repairs, and the increase in citation revenue. The years of analysis are 2018 through 2025; these years are used to simulate the proposed amendments through 12 months post full implementation.

Agency Signature	Date
	8/10/2017
Agency Head (Printed)	
Richard W. Corey	